THE

Erie Mining Company,

4

AND THE

NEW YORK AND ERIE MINING COMPANY.

INCORPORATED UNDER THE GENERAL MINING LAWS OF PENNSYLVANIA

PHILADELPHIA:
SHERMAN & CO., PRINTERS.
1865.

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Superintendent.

GENERAL THOMAS L. KANE,
KANE, McKEAN COUNTY.

PROSPECTUS

OF THE

ERIE MINING COMPANY,

AND THE

NEW YORK AND ERIE MINING COMPANY.

The Pennsylvania Railroad Company, after becoming lessees of the Philadelphia and Erie Railroad, caused a geological examination to be made of the Coal Lands of McKean and Elk Counties, with the view of ascertaining the amount of coal they would afford, and their relative proximity to the Northern markets. The Company employed the best talent; and their explorations, it is believed, were carefully and laboriously made. The fact was established that the Northernmost Coal Lands of Elk County which could be relied upon to supply coal in quantity were those of the Johnson's Run Coal Basin; and, in July, 1864, the Company opened negotiations with the owners, to secure their exclusive use and ownership. An arrangement was soon entered into to the satisfaction of the parties.

The arrangement provided for the immediate prosecution of mining operations, and the construction of a lateral railroad by the Pennsylvania Railroad Company. Before it was carried into effect, however, the counsel of the parties in Philadelphia expressed doubts of its validity in law, and it was deemed expedient to modify it. After prolonged consideration, the Agreement was finally concluded and signed at St. Mary's, Elk County, November 12, 1864, by Joseph D. Potts, General Manager of the Philadelphia and Erie Railroad, representing the Pennsylvania Railroad Company, and Thomas L. Kane, of which a copy is subjoined (A).*

On the 17th of January, 1865, an organization was made, under the General Mining Law of the State of Pennsylvania, of the Erie Mining Company. See Appendix (B).* Subsequently to this, it is understood, the legal adviser of the Pennsylvania Railroad Company again suggested doubts as to the power of the Pennsylvania Railroad Company, under their charter, to take the action required of them; and, on the 13th of March, 1865, the Company passed the following resolution:

Resolved, That in view of the legal and other difficulties arising under the proposed agreement between the McKean and Elk Land and Improvement Company, General Thomas L. Kane, the Erie Mining Company, and the Pennsylvania Railroad Company, for the development of certain Coal Lands and the construction of a branch railroad to the said lands, the Pennsylvania Railroad Company, as lessee of the Philadelphia and Erie Railroad, are compelled to decline entering into the said contract; but fully appreciating the importance of having the said lands fully developed, they recommend that efforts should be made to secure such results through individual enterprise.

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* These papers, with Maps I, III, and 1, may be consulted at the Company's Office, 15 South Seventh Street, where they remain on file.

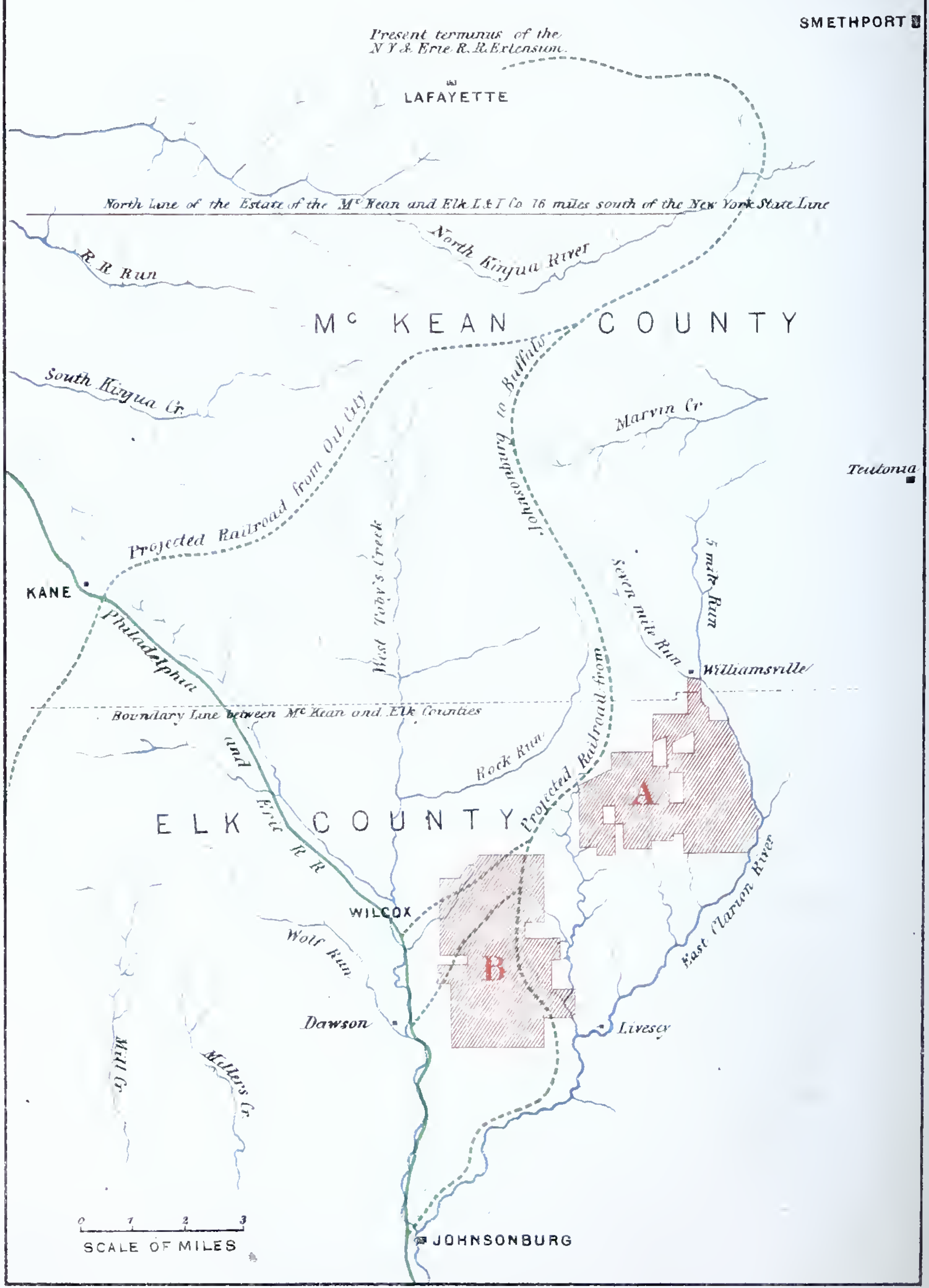
A copy of this resolution was communicated to the owners and received by mail in Elk County, March 30th, 1865. The lands being thus freed from embarrassment are now offered for sale. A detailed description is appended. The owners are prepared to *guarantee* the truthfulness of its statements. A price is expected proportionate to the value of the lands; but they will be sold, if desired, by the ton per acre; payment not to be called for before the number of tons upon each acre has been satisfactorily ascertained.

ESTATES OF THE

ERIE MINING COMPANY [B]

AND

NEW YORK AND ERIE MINING COMPANY [A]



T. SINCLAIR'S LITH. 311 CHESTNUT ST. PHILA.

ESTATE

OF THE

ERIE MINING COMPANY,

AND THE

NEW YORK AND ERIE MINING COMPANY.

Geological Description.

THE estate comprises the lands in the centre of the Johnson's Run Basin. It contains the best coal measures to be found in that Basin. No greater depth or thickness of coal measures, geologically speaking, is found in McKean or Elk Counties, north, east, or west of the Basin. Nor in a southerly direction, after leaving the Basin, is an equal thickness met with again for a distance of at least twenty miles. An excellent general description of the Johnson's Run Basin will be found in a paper by Joseph Lesley, C. E., of which that eminent geologist has obligingly permitted a copy to be made (Appendix, C). We are allowed to quote also from a special Report by a competent authority:

"These lands are all situated in the Basin described by Professor Dalsen, of Gottenburg, as 'the deep Basin at the head of Johnson's Run.'* They include the highest measures contained in this Basin. The total depth of the true coal formation in the Johnson's Run Basin was admitted by Dalsen to be not less than one hundred feet greater than any in the northern fields. It can be proved to be more than this. Whatever is true, then, of the strata outside the Johnson's Run Basin, is to be said in favor of those lying within it. And we have to compute, in addition, whatever minerals are contained in one hundred feet or more of carboniferous strata superposed. As a criterion to test the value of the lands of your selection, you may accept the characteristic stratum with regard to whose presence deception cannot be practiced, the high upper fossiliferous limestone. Of your selection you have proved parcels 2, 3, 4, 5, 6, 8, 9, 11, 12, 14, 15, 18, 19, 20, 21, 22, 23, 25, 26, 29, 31, 32, to contain this limestone. At least one coal also, the 'Gas Vein,' the value of which has been established by working on parcels 3, 9, 10, 20, 26, 32, will be proved to be confined to the strata above the lime exclusively. The geologist, too, will vainly inquire outside the Basin for the valuable limestone with fossiliferous iron ore above, and coal beneath, which is exposed upon the lands of the selection in a single solid layer over 7½ feet in thickness exclusive of the coal and iron. This deposit, if it exists north of the Johnson's Run and Little Toby Basins, should have been discovered before this.

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* Second Annual Report of the McKean and Elk Land and Improvement Company. Page 11, 12, 13, 14, following, of the same Report, may be consulted with advantage.

"It is a common mistake (not always an intentional one) to count the same vein repeatedly in different localities. As it is desired here to speak guardedly, no enumeration is offered of the number of workable veins upon your selection. They were estimated by a civil engineer in 1854 at 'six veins of coal and three regularly stratified veins of iron ore.' They are found at all depths, from near the surface to below the water-level (where one, at least, the Shaft Vein,* will have to be reached in some instances by shafting) through a thickness of true coal measures unquestionably amounting to 280 feet. Dalsen admits over 400. The number of coal veins above the upper limestone, *proved*, is three; below it, nine."

History of the Estate, and Title.

The estate of the combined Companies is a selection of lands from the choicest portions of the great Jones Estate, which was made by parties who enjoyed particular advantages for examining into value before purchasing. It is, in a word, the choice of managing agents—of all the different agents who have had the management of the Jones' Estate since it was purchased for settlement of the Holland Land Company in 1831.

"The Honorable William P. Wilcox was the first agent of the Jones: he selected lots 1, 2, 3 (Map II). His son, Alonzo J. Wilcox, now of Wilcox, Elk County, succeeded him in

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* Coal taken from this vein, March 17, 1864, at the level of the Creek near Johnson's, was pronounced by the Engineer of the Philadelphia Gas Works superior, as a gas coal, to the best Westmoreland.

1846; his purchases are numbered on the map 4, 5, 6, 7, 8, 15. Colonel A. I. Wilcox was succeeded by Hon. Thomas Struthers, of Warren; he made but one purchase while agent, the property numbered 9.* Mr. Struthers was succeeded by General Kane, the present agent of the McKean and Elk Land and Improvement Company. General Kane purchased the estates of Speaker Wilcox, Colonel Wilcox,† and Mr. Struthers, together with the properties marked 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25, owned by various settlers." Thomas L. Kane also selected parcels Nos. 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, the property of the McKean and Elk Land and Improvement Company, ascertained by the geological explorations of the Company to be of especial value.

The titles to the several parcels composing the estate, derived through different purchasers from the Holland Land Company, except about two hundred and three acres, have been examined by Souther and Willis, attorneys and counsellors at law, Ridgway, Elk County, and are certified by them to be good and free from incumbrance. They were purchased without regard to the prices demanded for them, and, with few exceptions, before the opening of the Philadelphia and Erie Railroad had imparted to them their present value.

Accessibility to Market.

The surface of the Estate is remarkably even and unbroken. No deep valleys, or other natural obstacles, intervene between it and the lines of railroad in operation north and west of it. (See Map C.) This cannot be said of any Elk County Coal Lands situated south of the Johnson's Run Basin. It is distant one hundred and six miles by the Philadelphia and Erie Railroad from Erie, Pennsylvania. No coal has been found on the line of the Philadelphia and Erie Railroad Company between the McKean and Elk Company's Estate and Erie. The Philadelphia and Erie Railroad Company will carry for the Erie Mining Company on very favorable terms.

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* Not included in sale to Erie Mining Company.

† With three exceptions, designated.

It is still more advantageously situated for the direct trade with Western New York. It lies between eleven and twelve miles S. S. E. of Lafayette, McKean County, upon the New York and Erie Railroad Extension. By the adoption of a circuitous route, eighteen miles in length from the crossing of the New York and Erie Railroad and the Warren and Smethport State Road, a line of almost unequalled natural advantages is obtained. (See Map III.) The gradients are uniformly low, the surface gradients nowhere exceeding sixty feet to the mile; it presents no objectionable curvatures; and it is so cheap of construction that responsible persons can be found who will contract to build it, four miles of line for the average cost of each one mile of the Erie Railroad Extension as already constructed. The route in question is the one proposed for the contemplated railroad from the State line to Johnsonburg. A branch from this would communicate to much advantage with the Little Toby Basin *viâ* Crooked Creek and the Wilson Summit.

Cost of Mining.

The coal on these lands can be so easily and cheaply mined that the owners will contract to deliver 200,000 tons within a year at a point upon the line of the proposed railroad mentioned above for the price of $1.60 per ton.* This is understood to be the cost of mining at Pittsburg. The price of labor however is at present very high, owing to the borings for Oil which are going on in the vicinity. It may be expected, too, that the cost of the first year's operations will exceed that of subsequent years.

By order of the Board of Directors.

WILLIAM BIDDLE,
President.

Franklin Institute, Philadelphia,
6th Month 1, 1865.

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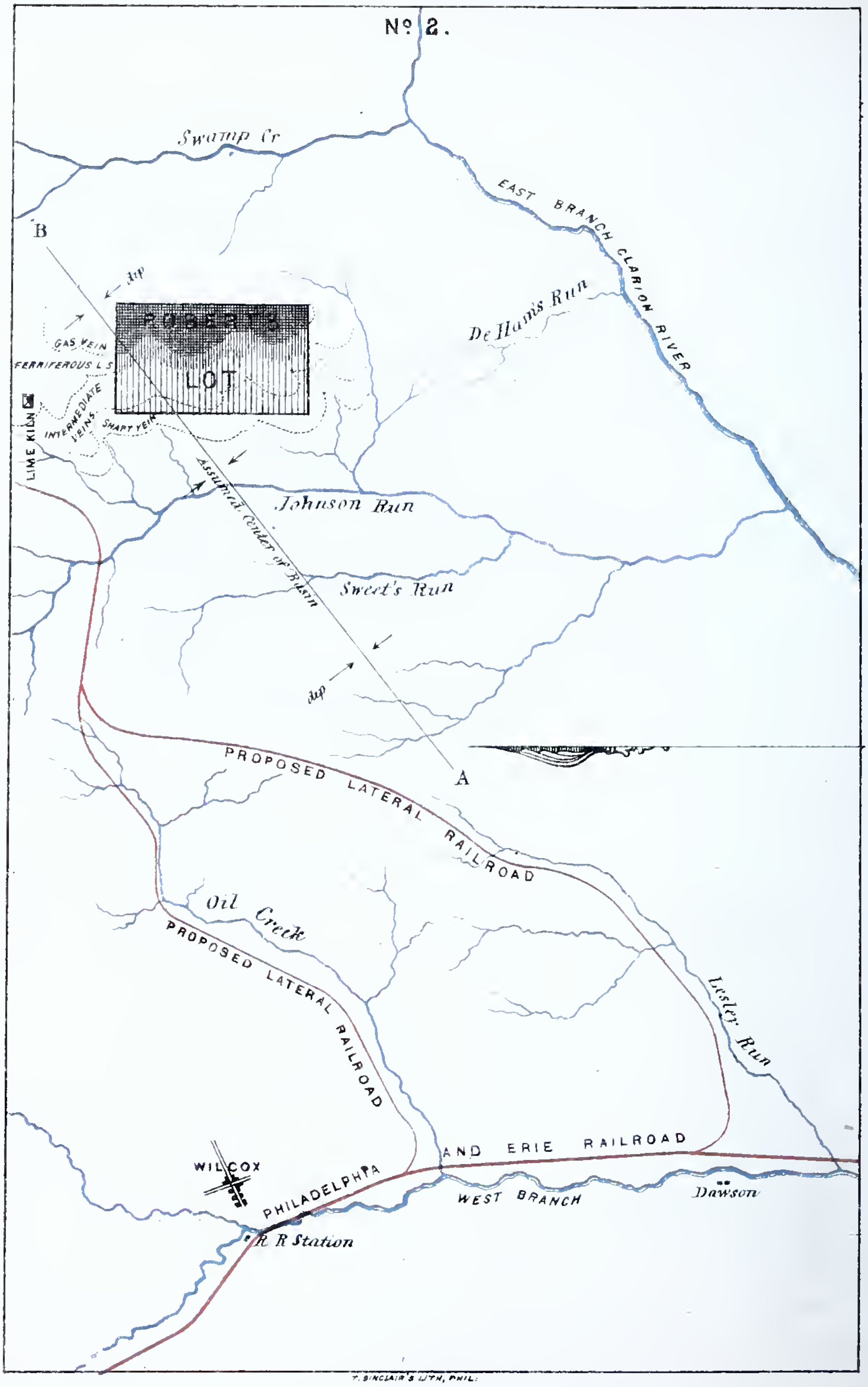
* Or, 500,000 tons in eighteen months, for the price of $2.00 per ton.



Nº 2.

T. SINCLAIR'S LITH, PHIL.

(C.)

GEOLOGICAL REPORT

ON

THE ROBERTS TRACT,

ELK COUNTY, PENNSYLVANIA,

JANUARY, 1865.

PHILADELPHIA, January 17, 1865.

GENERAL THOMAS L. KANE,
KANE P. O., McKEAN COUNTY, PA.

SIR: Before describing in detail the "Roberts" Tract, a general sketch of the geology of the great bituminous coal field of Western Pennsylvania will be in place, I think, to the better understanding of the position of the mineral deposits of that Tract.

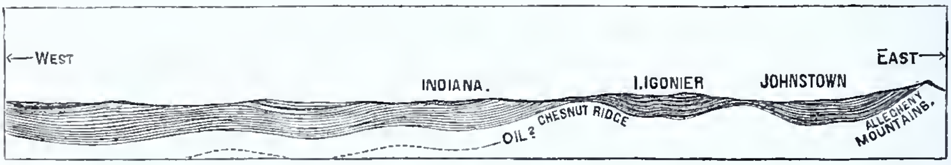
Map 1 of this report is intended to illustrate the outcropping of the systems of coals.

Map 2 gives the local topographical position of the Tract with its relative position to the railway already in operation.

Map 3 (woodcut on page 19) shows the relative positions of the Fifth Coal Basin (Roberts Tract is in the Johnson's Run part of this Basin) and the Third and Fourth Basins.

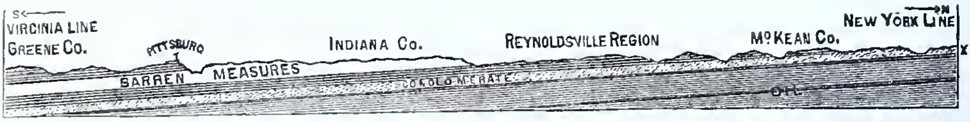
The bituminous coal system overspreads the whole country from the crest of the true Allegheny Mountain to Virginia, Ohio, and

Western New York, as the following section will show much better than any verbal description.



It is intended to show the waves of the rocks across the great field from a point (Penna. R. R. tunnel) on the Allegheny crest to the west side of the Allegheny River.

These waves run parallel to each other, forming mountains with basins lying between, which latter, running southwest and northeast, show themselves in Cameron, Elk and McKean Counties as narrow, broken fingers,—offshoots from the great hand of coal which covers without break the southwest portion of the State,—and hold only the lower veins of coal, whilst in Greene County they hold all the three groups of the coal measures. Why this is so will be seen by the following diagram:



Starting from the New York State line (at a point marked X on Map 1), and following the line,* you find first on the surface the conglomerate rock in the northern part of McKean County, then detached portions of the lower coals in the southern part of same county, and so on southward as the strata descend you have successively taken in all the coals of the second group. Still moving southward, the Barren Measures compose the surface until, as you approach the city of Pittsburg, the strata have descended enough to bring in the lower of the third group, and by the time the Virginia line is reached the whole of the coal measures is represented.

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* Line with arrow-heads drawn from top to bottom of Map No. 1.

The coal measures (under a nomenclature first adopted by Prof. J. P. Lesley) are divided into four systems: the Lower Coals (the sub-Conglomerate), the Middle Coals, the Barren Measures, and the Upper Coals.

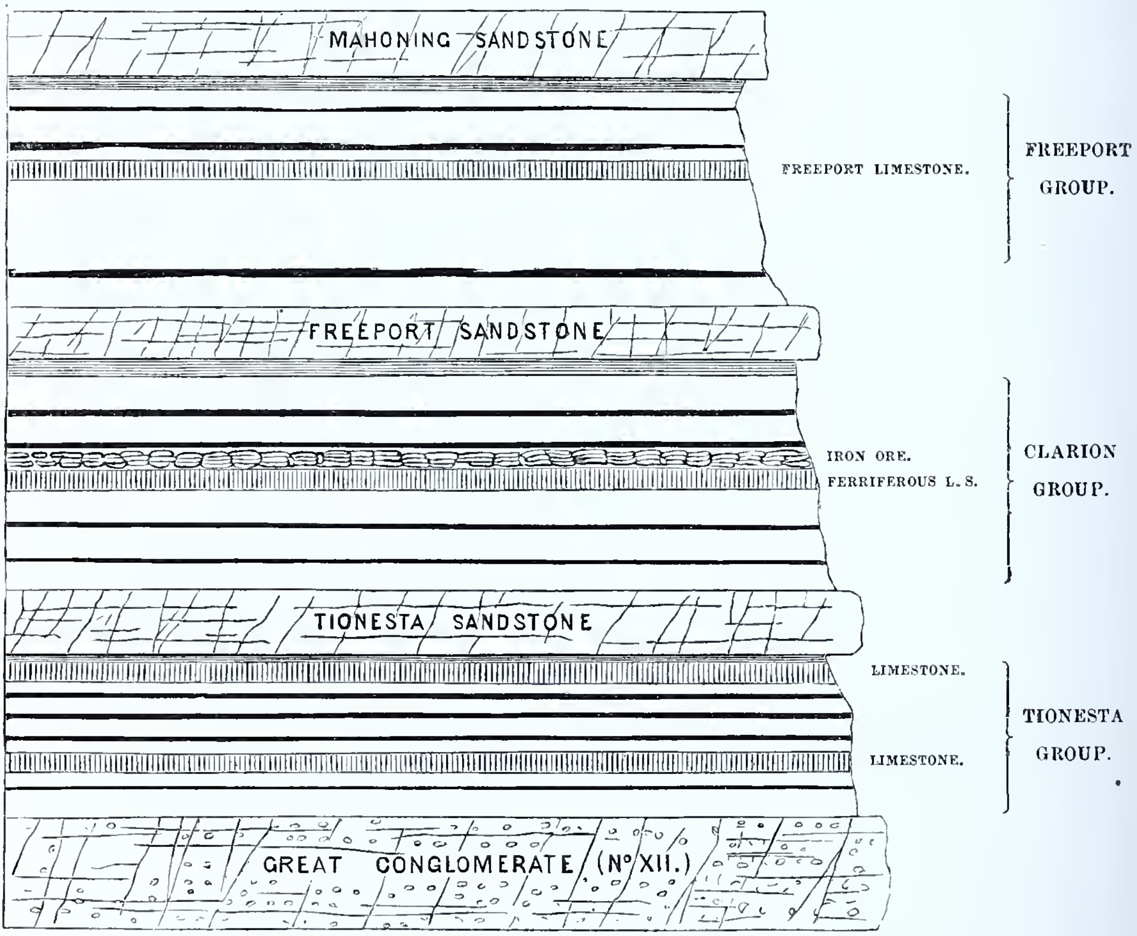
The first-named comprise those coals lying under the Great Conglomerate (No. XII of Pennsylvania Survey). These coals in S. W. Virginia and S. E. Kentucky are strongly developed in number and thickness, but are not so in Pennsylvania.

The Barren Measures (between the Middle and Upper Coals) vary in thickness from four to seven hundred feet, and are so called because no *workable* veins of coal are found in them.

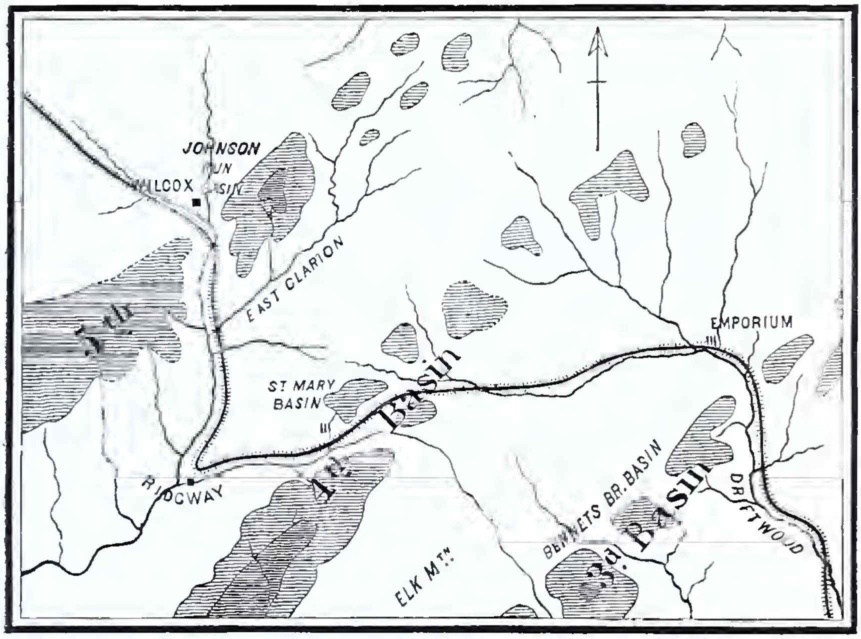
The Upper Coal system has for its base the "Pittsburg Bed," upon which lie the limestones, iron ores, and coals completing the measures of the Appalachian Coal Basin.

I have reserved a description of the Middle System to the last, because in this one are the coals which are found on your property.

The diagram below shows the general features of this system, and by it you will see that there are three *groups*, each taking the name of the locality where it has been best studied. The Lower or Tionesta group rests directly on the Great Conglomerate, and is separated from the middle one by the Tionesta Sandrock (the light rose-colored rock of your county), which supports the Clarion group, capped by the so called Freeport Sandstone, which last serves as the base of the third or Freeport group, the whole being divided from the "Barren Measures" by the triple-bedded mass of the Mahoning Sandstone. Each group presents, in the diagram, only the main workable coal veins and accompanying limestones; the celebrated "ferriferous limestone," with its overlying iron ore, occupying a position about midway of the system, and in the Clarion group. The Upper and Lower Freeport veins of coal are the exceptions to the rule of general regularity in thickness of the veins in this division of the measures, they varying from four to sixteen feet in thickness, according to locality. The other veins, so far as studied, have been found to carry their thickness with regularity.



As before stated, the coal seams lie in waves running parallel in a direction S. W. and N. E.; but they do not, in this course, lie horizontal; on the contrary, they rise in the direction N. E., and as the surface of the country does not rise in that direction as rapidly as the strata, the crests of these waves are cut off, thus leaving troughs or basins containing coals, which, as before described, appear on the following map as fingers. These fingers have been, for convenience, numbered from one to six. In the 5th finger or basin, and in that part of it known locally as the "Johnson's Run Basin," is located "the Roberts Tract."

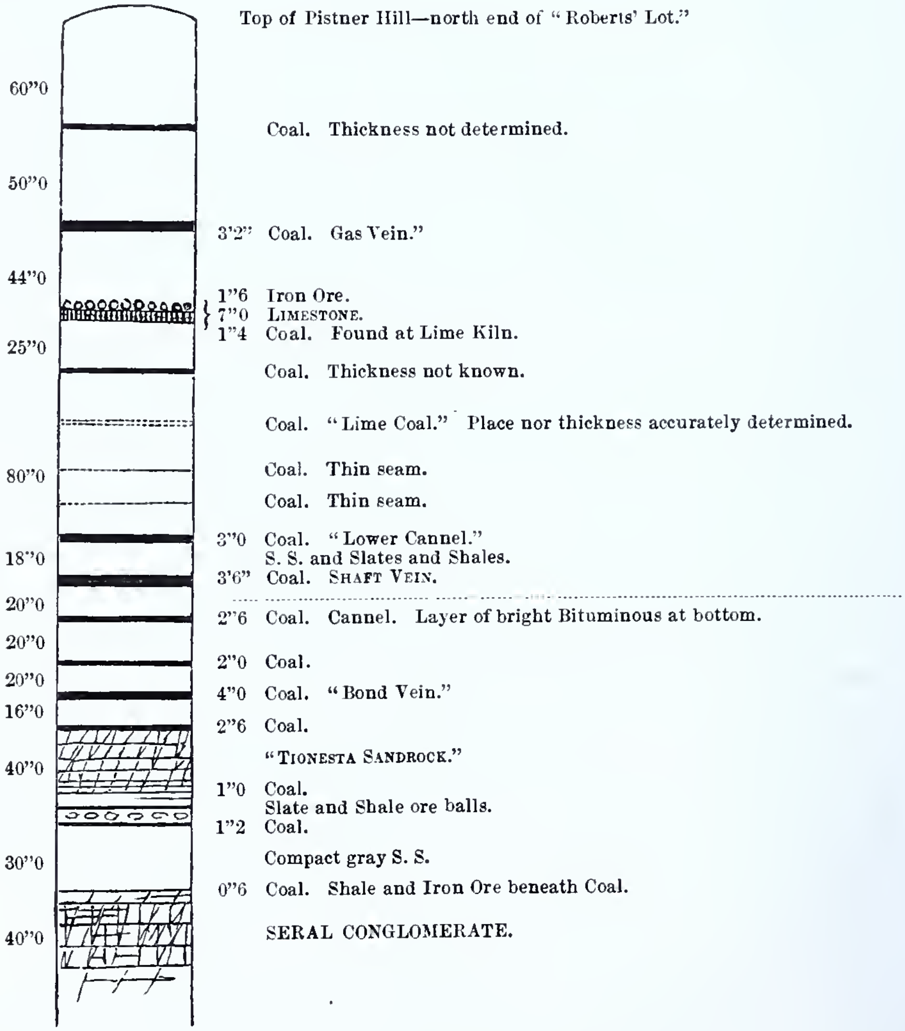


This tract is near the north line of Elk County, Pennsylvania, and is between the east and west forks of Clarion River, its immediate drainage being, by small branches, into Johnson's Run, the latter at about two miles distant mouthing in the East Fork. You approach it best from Wilcox Station, on the Philadelphia and Erie Railroad, from which it lies due east.

Agriculturally, this property compares favorably with others in this part of the coal measures. Its chief value, however, lies in its coal veins, its limestone, iron ore, and building stone, and in its favorable position for mining its minerals, and proximity to a railroad communicating with the great eastern cities, and with the lakes, through the city of Erie.

Before describing the minerals, I present you below certain sections built up from my own and other material, and you will see by them that the strata of your property belong to the Middle coal system, and to that portion of it lying below the Freeport sandstone.

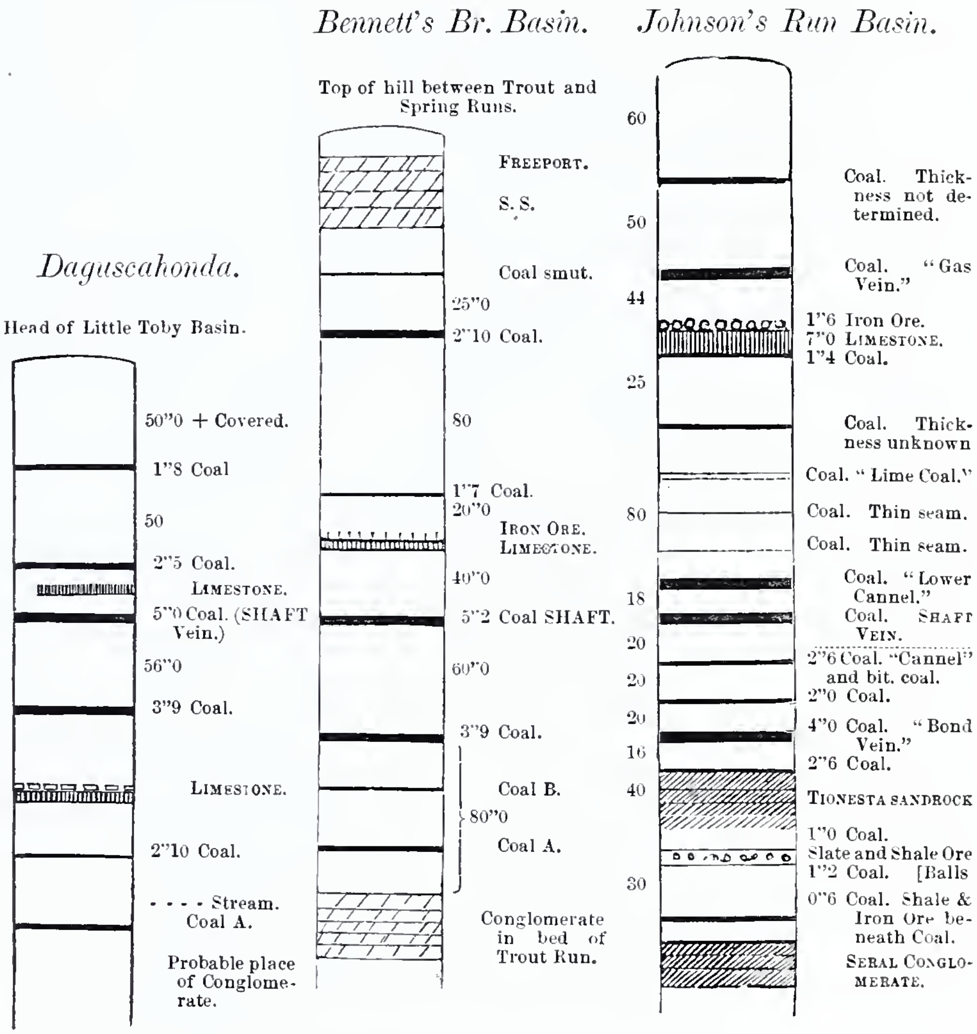
In making the first of the following sections, I would say that, owing to the wildness of the country, the roundness of the hills, with but few terraces, the almost entire absence of rock exposure in any force, and the few examinations made, it will be necessarily imperfect, but accurate enough to warrant the investment of capital in a thorough examination, and, as I firmly believe, in the development of the Tract.


Top of Pistner Hill—north end of "Roberts' Lot."
60"0
Coal. Thickness not determined.
50"0
3'2" Coal. Gas Vein."
44"0
1"6 Iron Ore.
7"0 LIMESTONE.
1"4 Coal. Found at Lime Kiln.
25"0
Coal. Thickness not known.
Coal. "Lime Coal." Place nor thickness accurately determined.
80"0
Coal. Thin seam.
Coal. Thin seam.
3"0 Coal. "Lower Cannel."
18"0
S. S. and Slates and Shales.
3'6" Coal. SHAFT VEIN.
20"0
2"6 Coal. Cannel. Layer of bright Bituminous at bottom.
20"0
2"0 Coal.
20"0
4"0 Coal. "Bond Vein."
16"0
2"6 Coal.
"TIONESTA SANDROCK."
40"0
1"0 Coal.
Slate and Shale ore balls.
1"2 Coal.
30"0
Compact gray S. S.
0"6 Coal. Shale and Iron Ore beneath Coal.
40"0
SERAL CONGLOMERATE.

The part of this section, from the dotted line down, is obtained from the Report of A. F. Dalsen to the Elk and McKean Company.

The upper portion is from a personal examination made in the summer of 1864, aided by Mr. E. Burlingame.

The sections which follow show the strata in the 3d and 4th Basins, occupying the same geological horizon.



All these basins have yet to be studied; and I sincerely hope one day will be, as their value must be great, lying as they do along the line of a great thoroughfare which is already causing settlers to flow in to these hitherto almost unknown regions to improve and beautify them.

It will be seen by the first section that the coal measures in Johnson's Run Basin measure, at their thickest part, 443 feet exclusive of the Conglomerate sandrock, and that, according to Dalsen, they contain seven coal veins below the Shaft Vein. Now, assuming that the Shaft Vein is the equivalent of the so-called "5-feet Vein" in the two basins to the eastward, then we may confidently count on three out of these seven as being of workable thickness. Dalsen gives the one under the Shaft as 2"6 feet in thickness; also, one locally called the "Bond Vein," which he reports as being from 4"6 to 5"0 feet thick. The "Splint Vein" is also reported by the same gentleman as being under the Conglomerate. As the result of my own examinations in the basin next east, I can say that one of these veins measures (taking an average of numerous openings) 3"9 feet. Another vein 2"10 feet; and on Bennett's Branch the lowest vein is a double one, and shows 3"6 of good coal.

Above these seven veins, which, if found elsewhere in the basin, must be in your property, are five more, well established, to which are to be added probably four more, the existence of which is believed in by many.

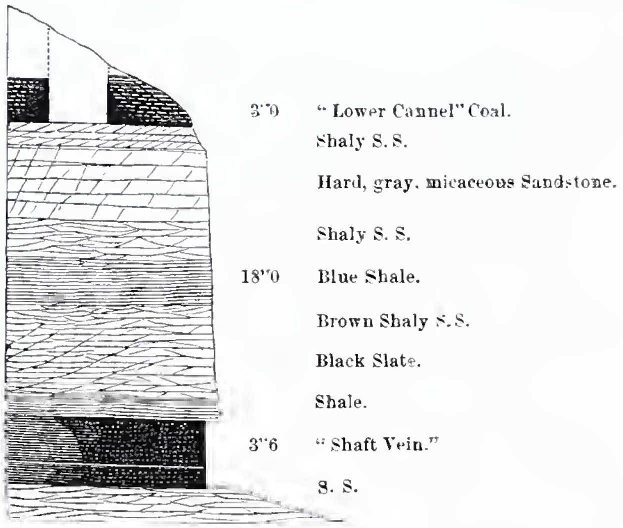
Eighteen feet above the "Shaft Vein," at a point on Johnson's Run, the so-called "Lower Cannel Vein" has been opened, and measures 3"10 feet in thickness, the upper part of it presenting a cannelly appearance. 101 feet above the last is found another, the thickness of which has not been determined, and 26 feet above it is a 16-inch vein of coal immediately underlying the ferriferous limestone. In these 126 feet between the Shaft Vein and the lime are surface indications of two small veins, and also the vein called the "Lime" coal, which is said to measure 3 feet. This vein is probably of good workable thickness. 97 feet above the limestone, near the top of Pistner Hill (which is a continuation of the Roberts Lot ridge), is a coal vein of undetermined thickness.

This leaves but two veins to be described, which, with the Lime

Vein, will form (for present practical working) the chief value, in coal, of the Roberts Tract.

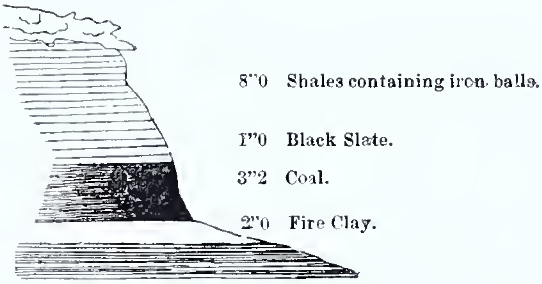
The Shaft Vein underlies the whole 298 acres of this property, and although presenting no outcrop above water-level, can still be practically worked by means of a shaft. It has been opened at numerous localities: at La Fayette, under the name of the Davis Vein; at Howard Hill, where it takes the names of Barnes and Dalsen Vein, and where it measures 3''7 feet in thickness. I also saw it opened near Bunker Hill, in the extension of the Johnson's Run Basin, where it measured 4''9 feet, including a thin parting of slate.

Immediately across the valley of Johnson's Run, west from the Roberts Tract, this vein has been well opened, showing a thickness of 3''6 feet of good coal, it with the "Lower Cannel" Vein and intermediate strata presenting the following section:



It presents everywhere in this and neighboring basins similar peculiarities, one of which is the thin slate parting near the bottom, making thus a lower bench, which is cubical and bright in fracture, as is also the upper portion. As at this locality, so at others, I have found it associated with the vein above it at about the same distance. It is reasonable to suppose that its peculiarities will go with it into the Roberts Tract.

About 177 feet above the "Shaft Vein" is the so-called "Gas Vein," which covers about 113 acres of the 298 contained in the Tract. This vein has been opened a short distance to the north of the Tract, near the St. Mary's road, in a small branch putting into Johnson's Run from the east, and shows the following section:



I am informed that further to the south it has been opened and shows the same peculiarities.

Calling this vein 3"0 thick, and giving it an area of 100 acres, and the Shaft Vein 3"6 feet thick, with its area of 298 acres, you have the following result as the amount of coal contained in them:

"Gas Vein,"	100 a.	3"0 thick	= 468,750 tons, s. c.,*	or 351,563 net.†
"Shaft " "	298 a.	3"6 "	= 1,629,687 " s. c.,	or 1,222,265 "
			2,098,437	1,573,828

If you add to this the Lime veins at 2"6 feet thick, over a probable area of 150 acres, and the "Lower Cannel" at 2"6 feet (all of which estimates of thickness are at lowest figures), over an area of 298 acres, you will have:

"Lime" Vein,	150 a.	2"6 thick	= 585,937 tons, s. c.,*	or 439,453 net.†
"Cannel" "	298 a.	2"6 "	= 1,164,062 " s. c.,	or 873,047 "

A sum total, in the Tract, of tons = 2,886,328 *net.*

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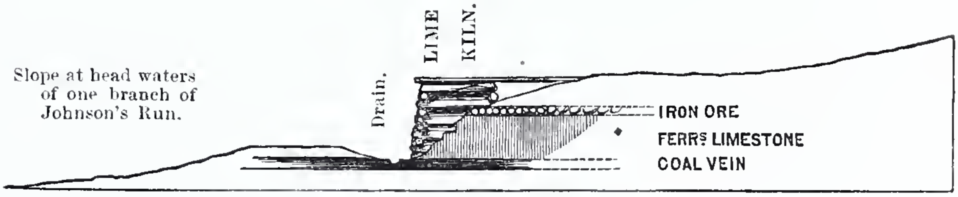
* S. c., solid contents.

† Net amount of coal, after deducting 25 per cent. for waste, pillars, &c. &c.

The ferriferous limestone before mentioned occurs on your property, and extends over 140 acres of it.

On a tract a short distance to the north of the Roberts Tract, and in an extension of the same ridge, this limestone has been stripped, quarried and burnt, and has associated with it a band of iron ore and a vein of coal, the first lying immediately on it, and the second immediately under it, as the following drawing will show:



This limestone is in solid bank, nearly eight feet thick, and I consider it of very great importance. Its quality is good—does not burn white, but is reported to be very strong. It is the frontier lime of the coal northwestward, near the line of the Philadelphia and Erie Railroad, which is the great artery of communication for this section of the State (this will be seen by referring to the blue and red circle, in 5th Basin, Map No. 1). Not that there is no lime nearer the railroad, for there are patches of *lime soil* to the west, but that it shows itself in body and under cover within the comparatively small limits of the Johnson's Run Basin. Should this limestone extend, as I believe it does, over more than 140 acres of your Tract, the value of that tract will be greatly enhanced. The lime can be mined not only for shipment but for the manufacture of iron. This iron ore band is the only one in this part of the State that can be depended on. It measures 19 inches, and is a regular coal measure carbonate. No analysis of it having come into my hand, I can say only that its appearance is good; that its existence here, along with that of the lime and coal, has caused some to seriously intend starting iron-works. Its proximity to the railroad is favorable, as the

Superior or Lake Champlain ores could be brought more cheaply than to Pittsburg (where they now go for mixing purposes), or this ore could be sent to any supposed more favorable locality, to be there mixed for the high blast furnace. A careful analysis of this ore should be made, it being more necessary than of the coals, as they have been proven to be good—indeed, excellent, as will be seen by the accompanying analysis made by Dr. Cresson of this city, of coal recently taken from the first seam below the "SHAFT" which has been worked on the Roberts Lot below the limestone and supposed to be the "LIME" Vein.

"COAL No. 2.

"Specific Gravity, 1 307.

"Volatile matter in Ton, ...	842 lbs.
Coke, ...	1,398 "
Ash from Coke, ...	25.26
Sulphur in Ton of Coal, ...	16.8
" " Coke, ...	7.65
" " Coke from Ton of Coal, .	4.8
" volatilized per Ton Coal gas making,	12

Coke from Ton of Coal, 37 bushels.

Weight per bushel, 37.8 lbs.

Value as fuel, $\frac{950}{100}$ of standard.

Gas per Ton, 9184 cubic feet.

$429\frac{7}{10}$ lbs. spermaceti.

Value of Coal for Gas making, 0.992.*

"In general appearance is undistinguishable from the standard coal. Black, with cubical fracture and clear bright surface. Swells and agglutinates upon the fire. Is free from foreign matters. Streak dark brown. Coke not quite so compact as that from standard coal. Stronger than No. 1, and burns less freely than standard.

"Coals Nos. 1 (Gas Vein) and 2 (coal under examination) are very similar in appearance with the standard coal. The lower average of No. 1 is caused by a great falling off of product from two or three samples; at the same time, one sample gave results much better than the standard. The results from No. 2 were remarkably uniform, the greatest variation from the average of all its trials being less than six per cent.

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* As compared with standard Ton (Pittsburg Coal, choice sample).

"The probabilities are that both of these coals will improve when the mass of the vein is reached, and that the product will be identical with that obtained from the best Pittsburg pits, and able to compete with them for every purpose for which that coal is now employed."

And now I wish to speak, before closing this report, of the advantages of position which this property has.

The Roberts Tract may be said to occupy the centre position in the Johnson's Run Basin.

The coal measures are thicker in this Basin, and probably on this very Tract, than in any locality to the west or northwest, or indeed north of the railroad, in either Cameron, Elk, or McKean counties. It therefore shows a greater value on this account, and *as this Basin is the practical frontier one*, it necessarily has advantages over all others in nearness to market, as the latter will be Erie, and through it the Lakes and the West. Map No. 2 shows two proposed lateral branch railways from the Philadelphia and Erie Railroad to the heart of the Basin, one of which we have reason to believe will be constructed at no distant day. Either route will present equal facilities for developing your Tract.

Supposing the northern or Oil Creek lateral to be the one, you will then be distant from Erie 109 miles; if the southern one be adopted, the distance will be 110½ miles.

The only coals now being mined and seeking a market are those of St. Mary's, which are the lowest coals of the measures, and are distant 129 miles from Erie. The Daguscahonda coals, in the same basin as the last named, but south of the railroad, when ready for shipment, will have to be carried 131 miles before reaching Erie, and the Shawmut mines (in Little Toby Basin) are still further, being 136 miles from a market on the Lake.

Thus this Tract excels in the number of its coal veins, in its limestone and ore beds, in its nearness to market, and in the facility with which it can be developed.

Very respectfully,
JOS. LESLEY,
Top'l Geologist.

APPENDIX.

SINCE printing the preceding, the following Report of C. G. Pollock, Civil Engineer, has been received:

WARREN, July 21st, 1865.

BRIG. GENERAL THOMAS L. KANE:

DEAR SIR: With this you have the field notes of the remarkable line run by me according to your directions, between the summit at the head of Oil Creek and the Buffalo, Bradford, and Pittsburg Line (New York and Erie extension).

It has been thoroughly tested with the level, and the fact disclosed, that we have a line between Oil Creek summit and the B. B. and P. R.R. line, without objectionable curvature, with an average ascent of about twenty-five feet per mile to the drainage of the Kinjua, a distance of twelve and a half miles. It is seen to *obey the natural surface of the ground*, with no grades exceeding fifty feet per mile, this grade being for the mile from Weidert Summit to Hoyt's, and the mile between Rocky Run Head and west branch of Seven Miles. This is diminished on the location line to forty feet per mile. A surprising feature is the evenness with which the descent from the Kinjua Heights is distributed. I am entirely satisfied that there need be no descending grade running north whatever; hence no part of the ascent will have to be made twice. No culverts or bridges will be necessary except for surface drainage; and the cuts and fills will be mere skimming.

Such a line might seem scarcely to admit of improvement, but unless the greatest economy is demanded, I would avail myself of the facility which the ground affords for running the entire distance over a few long tangents. This object can be accomplished by a trivial amount of embankment and excavation.

It may also be to the interest of the Road to deflect, as you suggest, at station 340, to touch the coal-drifts on your Wilcox Lot above Williamsville; but I would prefer the perfect line.

This line *can be more cheaply built than a level prairie road*, from the fact that no water-courses occur upon it. Where a culvert is necessary for surface drainage, the surface to be drained amounting to only a few acres, will require the smallest possible structure; whereas, a very small stream on the prairie often drains a large extent of country, and is liable to be the channel-way of great floods.

We have here, too, the material for construction upon the ground. The ties can be obtained from the timber cut in clearing the roadway, and the few stone required for masonry picked up on the surface. Also, for fuel there is a full supply of hard wood along the line, and an abundance of coal in the ground.

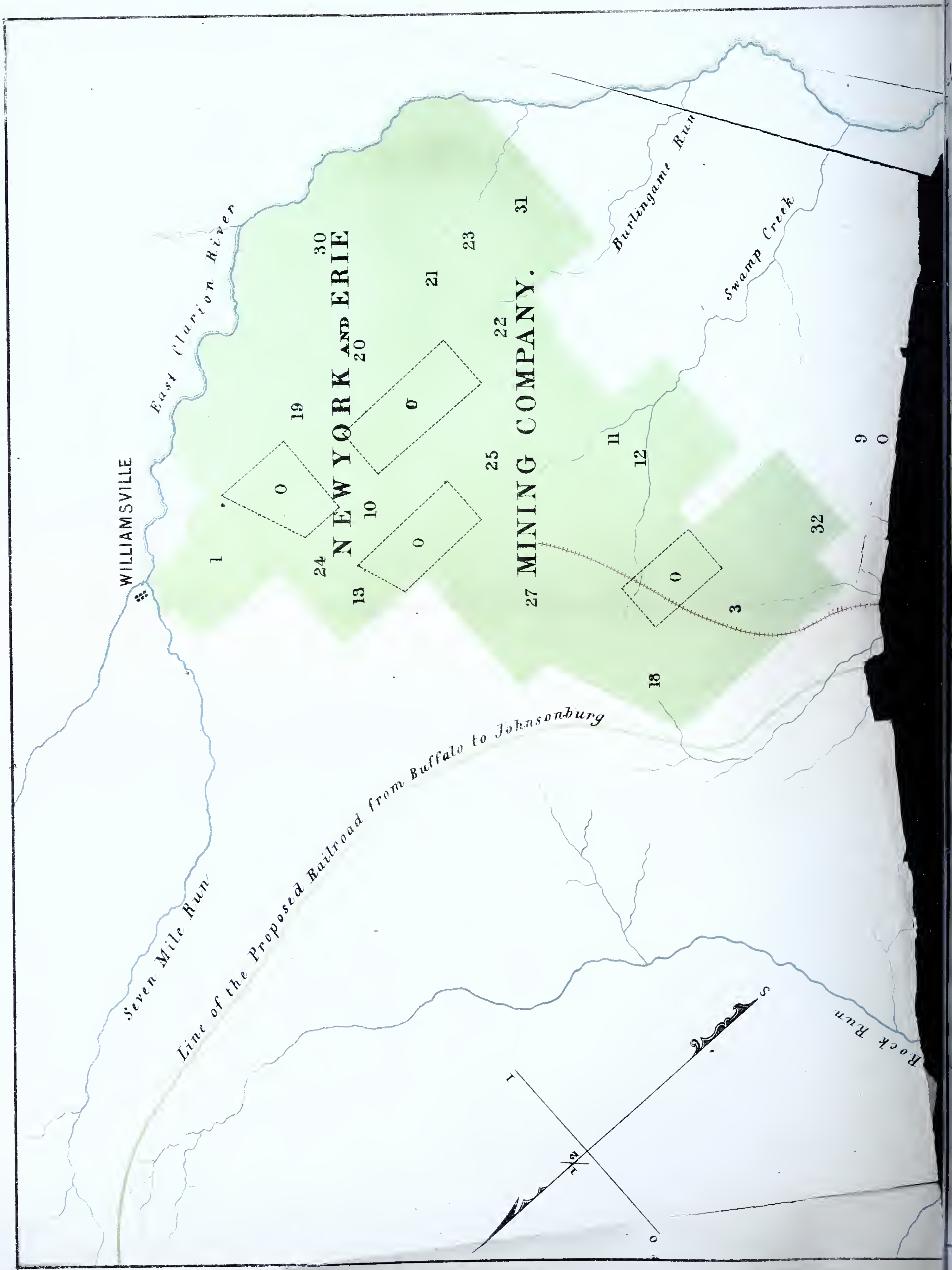
Beech Tree 1, at Oil Creek Summit, is 337 feet above Wilcox, and 413 feet above Johnsonburg, according to the received statements.

Hence, taking into consideration the easy grades, light work, direct line, inconsiderable amount of masonry, cheapness of materials, and that there is no waste of grade in making the ascent, we have a line which can be surpassed in no particular. Then to the merits of the line itself we have to add the cheapness and abundance of fuel available for an indefinite period.

Very respectfully yours,

C. G. Pollock,

Civil Engineer.


NEW YORK AND ERIE
MINING COMPANY.
WILLIAMSVILLE
East Clarion River
Burlingame Run
Swamp Creek
Seven Mile Run
Line of the Proposed Railroad from Buffalo to Johnsonburg
Rock Run
1
24
13
19
10
20
30
21
23
22
25
27
31
11
12
18
3
32
9
0
0
0
0
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1
1/2
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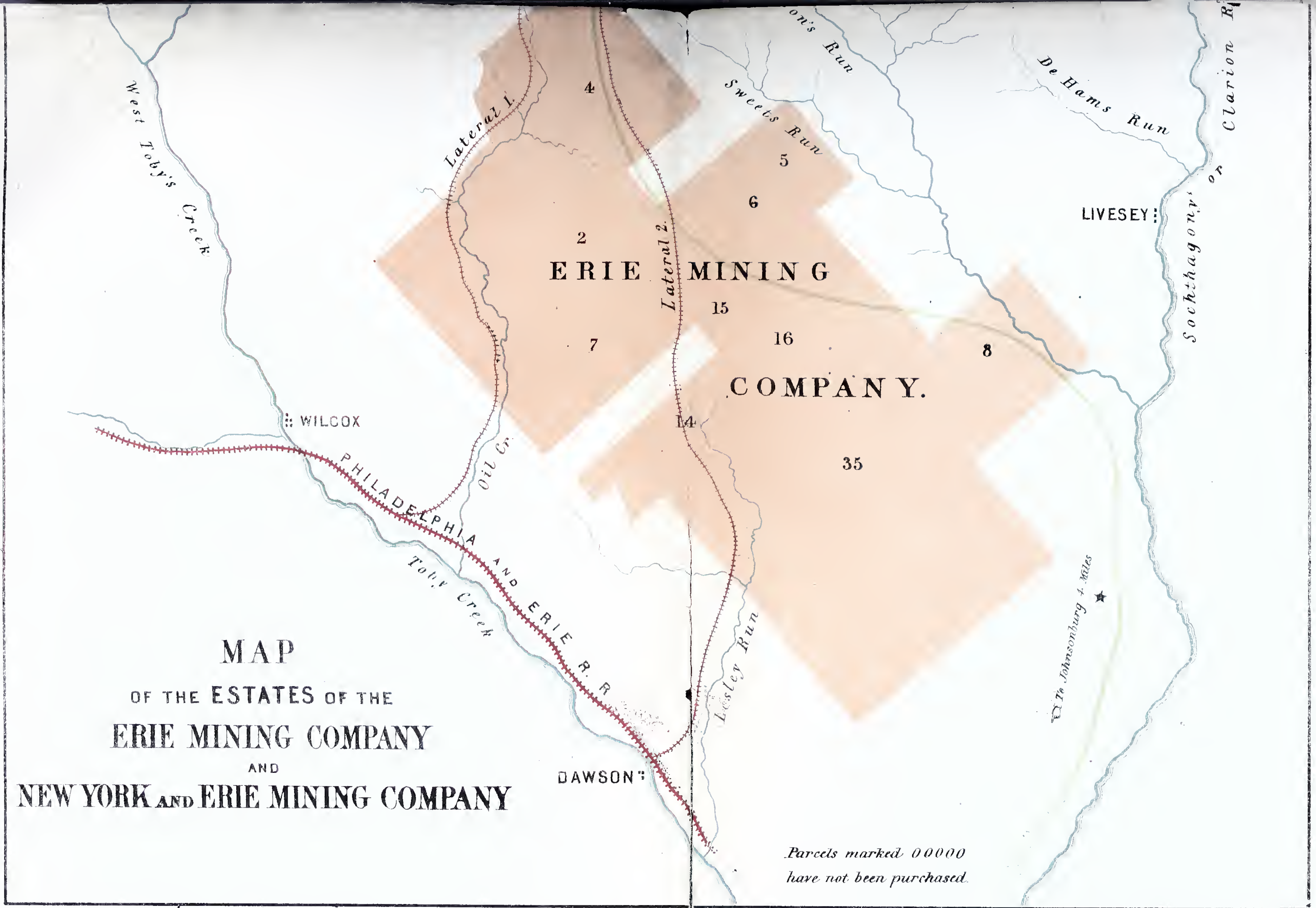
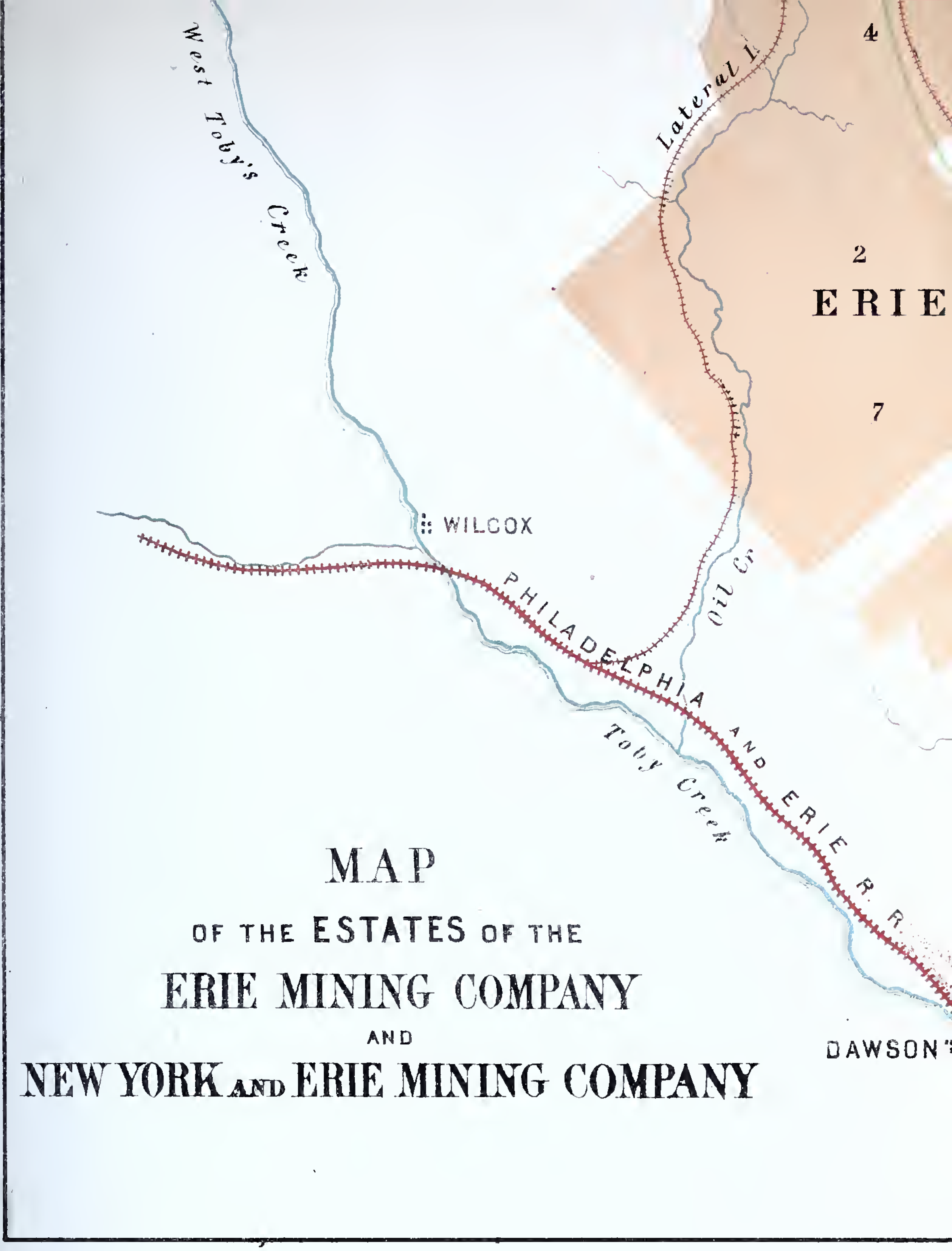


MAP
OF THE ESTATES OF THE
ERIE MINING COMPANY
AND
NEW YORK AND ERIE MINING COMPANY

Parcels marked 00000 have not been purchased.



MAP

OF THE ESTATES OF THE

ERIE MINING COMPANY

AND

NEW YORK AND ERIE MINING COMPANY